REMARKS

Applicant respectfully requests reconsideration and allowance of claims 1-10 that are pending in the above-identified patent application. Applicant has amended claim 1 and the specification. No new matter is added by way of these amendments.

Applicant is filing this response concurrently with a Request for Continued Examination, and thus, the finality of the pending office action should be withdrawn.

Rejections Under 35 U.S.C. § 103(a):

At pages 2-5 of the Office Action, the Examiner rejected claims 1-7, 9, and 10 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,947,118 ("the '118 patent") in view of U.S. Patent No. 5,871,010 ("the '010 patent") and in further view of U.S. Patent No. 5,472,143 ("the '143 patent"). Applicant respectfully traverses the Examiner's rejection.

Amended independent claim 1 recites "a plurality of cells having sloped and/or tapered parabolic-shaped elevations and/or depressions in a repeating pattern of an egg-carton arrangement". (Emphasis added.)

The above-quoted features are not disclosed or suggested by the cited art of record. Indeed, the teachings of the '118 patent, the '010 patent, and the '143 patent, alone or in combination, do not disclose or suggest sloped and/or tapered parabolic-shaped elevations and/or depressions as claimed in the instant application.

Applicant respectfully acknowledges that the Examiner agrees that when the '010 patent is disclosing a curved or circular configuration in col. 5, lines 40-47, the '010 patent is disclosing the shape or path of the indentation or raised area, not the surface structure between the raised areas and/or indentations. Indeed, the '010 patent does not disclose or suggest sloped and/or tapered parabolic-shaped elevations and/or depressions as claimed in the instant application. Applicant submits that the raised areas and/or indentations of the '010 patent are not sloped and/or tapered between the raised areas and indentations. As such, the grooves of the '010 patent are structurally different from sloped and/or tapered parabolic-shaped elevations and/or depressions in a repeating pattern of an egg-carton arrangement as claimed in the instant application.

Applicant respectfully acknowledges that the Examiner agreed with Applicant's prior argument that the '010 patent teaches minimizing the area of contact between the medicament and

the surfaces of the inhaler. Indeed, the purpose of the grooves of the '010 patent is to minimize the contact area between the medicament and the surfaces of the inhaler (see abstract; col. 1, lines 35-38; col. 2, lines 55-57 of the '010 patent). Thus, Applicant submits that the '010 patent teaches away from increasing the surface area of contact between the medicament and the surfaces of the inhaler, which would occur if one skilled in the art employed the sloped and/or tapered parabolic-shaped elevations and/or depressions of the present invention as claimed instead of the parallel grooves of the '010 patent.

Applicant submits that the Examiner draws an improper conclusion that the contact between the medicament and surface of the inhaler would be reduced using depressions as claimed. Although more material might be removed from the surface to produce the claimed depressions, Applicant submits that the interaction between the claimed depressions (and elevations) would increase the contact area between the medicament and the surfaces of the inhaler as compared to parallel grooves of the '010 patent. Indeed, a sloped and/or tapered parabolic-shaped elevation and/or depression has a larger surface area to make contact with a particle than the parallel grooves as disclosed or suggested in the '010 patent.

With reference to the Figure submitted herewith, sloped and/or tapered parabolic-shaped elevations and/or depressions arranged in an egg-carton arrangement, such as in the present invention, inherently have a greater surface area of contact with the medicament than narrow grooves, such as in the '010 patent. Indeed, sloped and/or tapered parabolic-shaped structures, according to one or more embodiments of the present invention, increase the surface area of contact as compared with parallel grooves of the '010 patent. A cross-section of a depression taken along line A-A shows particle 1 in contact with the surface area of the sloped and/or tapered parabolic-shaped depression. Particle 1 has a diameter of 5 microns (μm) while the sloped and/or tapered parabolic-shaped depression has a height of 2.5 microns (μm).

In accordance with col. 6, lines 12-17 of the '010 patent, the groove has a pitch, measured from the center of a valley to the center of a raised area, of about 2.5 microns (μm). The particle sizes disclosed in the '010 patent are disclosed as being about 2 to 6 microns (μm). The first cross-section of a groove of the '010 patent taken along line B-B shows particle 1 in contact with two points 4, 6 at the top of the groove. Particle 1 is larger than the dimensions of the groove and, thus, rests on top of the groove and not in the groove. The second cross-section taken along line B-B

depicts particle 2 with a diameter of about 2.5 microns (μm), which fits into the groove as shown. The contact between particle 1 and the groove of the '010 patent is minimized to two points 4, 6. Contact between particle 2 and the groove of the '010 patent is minimized to three points 9, 11, 13.

In contrast, by way of an example of one embodiment of the present invention, the contact between particle 1 and the sloped and/or tapered parabolic-shaped depression is not minimized. Indeed, particle 1 has a larger area of contact with the sloped and/or tapered parabolic-shaped depression due to the sloped and/or tapered characteristics of the parabolic-shaped depression. Similar contact may be shown with sloped and/or tapered parabolic-shaped elevations. As such, those skilled in the art would recognize that sloped and/or tapered parabolic-shaped structures, such as in the present invention, have larger surface area in contact with the particles of the medicament as compared with the grooves of the '010 patent. Therefore, those skilled in the art would be discouraged from modifying the device of the '010 patent with sloped and/or tapered parabolic-shaped elevations and/or depressions when the device of the '010 patent must have a minimized surface area of contact with the medicament. The '118 and '143 patents do not cure the aforementioned deficiencies of the '010 patent. As such, Applicant submits that the teachings of the '010 patent, the '118 patent, and the '143 patent, alone or in combination, do not disclose or suggest employing sloped and/or tapered parabolic-shaped elevations and/or depressions in a repeating pattern of an egg-carton arrangement, and that amended independent claim 1 is, therefore, patentable. As claims 2-7, 9, and 10 depend from amended independent claim 1, and recite additional patentable features, the subject dependent claims are, therefore, likewise patentable.

In the Office Action at page 5, the Examiner rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over the '118 patent, the '010 patent, and the '143 patent in further view of U.S. Patent No. 4,889,114 ("the '114 patent"). The '114 patent does not cure the aforementioned deficiencies regarding amended independent claim 1, from which claim 8 depends. Therefore, Applicant submits that claim 8 is, therefore, likewise patentable.

Accordingly, Applicant respectfully requests that the Examiner's § 103 rejections be withdrawn.

Conclusion

In view of the foregoing, Applicant submits that the instant claims are in condition for allowance. Early and favorable action is earnestly solicited. The fee for the RCE is included herewith. In the event there are any fees due and owing in connection with this matter, please charge same to our Deposit Account No. 11-0223.

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Respectfully submitted,

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